

A Corporate Publication of Santee Cooper

# POWERSOURCE

WINTER 2010



# from the CEO

*The winds of change are blowing stronger in South Carolina, especially regarding offshore wind energy.*

It's been 10 months since I took the stage in Georgetown, S.C., and announced the planned launch of six weather buoys that would, for the first time, help us track offshore wind at a level of detail required to plan a wind farm off our coast. Those buoys are gathering data and we are now closing in on the next phase of that research: building an anemometer off the coast to help us measure wind speed, direction and frequency at hub height for a typical wind turbine.

In December we awarded our first contract for the offshore anemometer station, to a U.S. subsidiary of Danish-based COWI Inc. and a team of experienced offshore wind and permitting consultants. They will recommend to us a design for the anemometer station, the best anemometry equipment to use and a permitting strategy for the station. Meanwhile, the buoys are gathering data that should help us pinpoint a location to build the anemometer station. Our goal is to zero in on the most likely spot for sustainable offshore wind and confirm that selection with the anemometer station.


We are still in the early stages of a lengthy and uncertain process. The anemometer station, once built, will gather data for a full year. This data is crucial to any decision regarding constructing an offshore wind farm. I am grateful for the large group of stakeholders involved in the Palmetto Wind Research Project, a group that includes Coastal Carolina and Clemson universities, the South Carolina Energy Office, N.C. State and the Savannah River Project. I am encouraged that some of these stakeholders just won a grant for a next-generation wind turbine testing facility in North Charleston, a project advanced considerably by key state and federal lawmakers.

Bit by bit, we are assembling an infrastructure that enhances the likelihood South Carolina will someday be powered in part by offshore wind. That is important to Santee Cooper, to our customers and to our state. It is increasingly probable that one day soon, states and individual utilities will be financially penalized

if we cannot produce enough renewable energy. With its solar-filtering humidity and insignificant onshore wind, South Carolina has limited options for utility-scale renewable energy. I said it last March when we announced the buoy project, and I say it again now: Offshore wind may be our best hope.

There are many challenges and hurdles to overcome, should we decide to move forward. We will conduct environmental studies and gather public input. We'll need to figure out how to incorporate wind energy into our existing transmission system. We'll need clear instructions on how to get the turbines permitted. Cost will be an issue. Although these projects cost money — we think we'll spend about \$1 million on the anemometer station — the real cost will be in building an offshore wind farm. Wind power could cost about twice as much to deliver as traditional generation. We are proceeding methodically, and that is vital. We need to be sure of success before we make that decision.

For nine years, Santee Cooper has led the state in renewable energy generation and promotion. We have an aggressive goal to generate 40 percent of our energy by 2020 from non-greenhouse gas emitting resources, biomass fuels, conservation and renewable energy. We need offshore wind to be a part of that.

  
**Lonnie N. Carter**  
President and Chief Executive Officer



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## Winter 2010— Vol. 10, No. 1

*PowerSource* is published by Santee Cooper Corporate Communications.

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# WINTER 10

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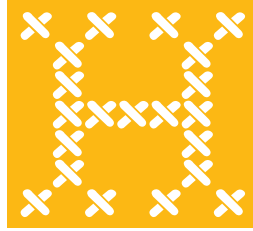
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By Willard Strong  
Photography by Jim Huff

# 22







ome. There's no place like it. Where the laughter of children and the smell of baked cookies permeate the halls. Cozy. Safe. Where life happens. Where the heart is. Home sweet home.

A home is also a man-made habitat comprised of complex physical and mechanical systems to sustain your lifestyle. It shelters your family from the elements. It houses your stuff and the things that maintain your stuff – like clothes and washers/dryers, food and refrigerators/freezers – and it all runs on electricity.

Santee Cooper understands home, and so we created the Smart Energy Homes Program. It pays homeowners to improve the energy efficiency of their existing homes – Smart Energy Existing Homes – and home builders to construct more energy efficient new homes – Smart Energy New Homes. It's a comprehensive, whole-house approach to improving the energy efficiency and comfort of your Home Sweet Home.

Santee Cooper's Smart Energy Existing Homes Program uses rebates and low-interest loans to entice homeowners to improve the energy efficiency of their homes. Homes can qualify by achieving an energy performance target or installing a number of specific energy efficiency upgrades, each of which can potentially increase comfort while reducing your home's energy usage. It all starts with a phone call to a Santee Cooper energy advisor who will support customers through each step of the program.

"We set up a time to stop by and conduct a free energy evaluation of the customers' home," says Herman Holmes, supervisor of residential energy services. "We visit with them, find out about specific problem areas. Then we make a thorough visual inspection of the home, including the attic and crawl space. We may also run any number of home performance tests.

"After the inspection we give the homeowners an assessment of their home's condition and provide a list of energy efficiency and comfort recommendations," Holmes says. It's particularly satisfying when you can identify any low-cost improvements that they may be able to complete on their own, like caulking and weather stripping. The list may also include more comprehensive improvements, such as upgrading heating and cooling systems, that will require the assistance of a qualified contractor."

Qualified homeowners can receive a \$600 rebate for meeting the minimum Smart Energy Home energy performance requirements and may qualify for low-interest financing directly from Santee Cooper for the installation of qualified upgrades. This is in addition to any other currently available manufacturer, state or federal incentives or rebates. Making your home energy efficient has never been more affordable.

The program is available to Santee Cooper customers who own a home that meets these requirements:

- ❖ The home must be separately metered and receive electrical service from Santee Cooper as evidenced by a meter base.
- ❖ The home must have been built prior to 2005.
- ❖ The home must be all electric excluding hybrid heat pumps and decorative gas logs.

Having a home evaluation puts homeowners under no obligation. Afterwards, they may apply for the rebate or loan, pledge to make low-cost improvements themselves, or wait until a later date. It's entirely up to each customer.

"All this fits under Santee Cooper's Reduce the Use umbrella, our long-term, comprehensive commitment of 42 various rebates and initiatives aimed at reducing our state's overall energy consumption and helping protect the environment," says Marc Tye, Santee Cooper's vice president of conservation and renewable energy. "By

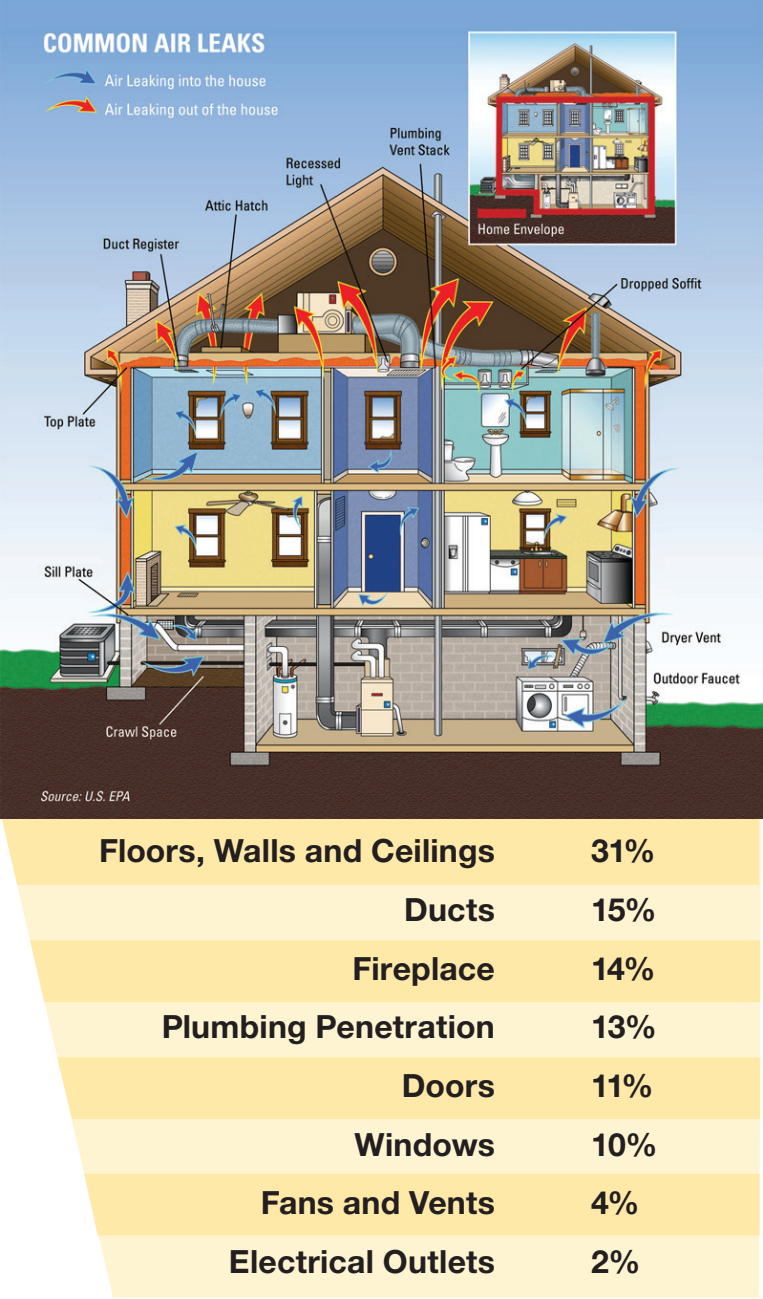
Home Sweet Home

*By Phil Fail*

*Photos by Jim Huff*



How does the air escape?



building in energy savings to new and existing homes, customers will be using energy more wisely today and in the future.”

The Smart Energy New Homes Program offers rebates to builders of new homes that achieve minimum energy efficiency standards. There are two levels of participation available:

- ENERGY STAR® Homes qualify for a \$1600 rebate. These homes are built to meet the U.S. Department of Energy’s ENERGY STAR standards and are certified under the ENERGY STAR rating system to be 15 percent or more efficient than 2006 International Energy Conservation Code (IEEC) by a qualified Home Energy Rating System (HERS) rater. To be eligible for the rebate, home builders must become a partner with the national ENERGY STAR for Homes Program.
- Smart Energy New Homes qualify for a \$1000 rebate. These homes are certified to be 10 percent or more efficient than 2006 IEEC by a qualified Home Energy Rating System (HERS) rater.

“For new homes,” Holmes says, “the process involves having a HERS rater evaluate the new home plans, run computer modeling to determine appropriate measures for that particular house plan, conduct two inspections with measures and verification equipment, and score the home on a scale of zero (net zero energy use) to 100 (a standard code home).

“If the score is 85 or less, the home qualifies for ENERGY STAR certification and Santee Cooper pays the builder \$1,600 to help offset the additional costs in construction and hiring the rater,” Holmes continues. “If the home scores between 86 and 90, the home qualifies for a South Carolina Smart Energy Home certification and the builder is paid \$1,000.”

The average cost increase to make a standard new home ENERGY STAR certified is an additional 1-3 percent, or \$1,000 to \$3,000 on a \$100,000 home. Santee Cooper’s rebates are designed to help

offset that cost, and the builder then has a marketing advantage that differentiates his home from others that are for sale. This approach also assures the homeowner a higher performing, more comprehensive analysis of the home.

“Simply put,” adds Tye, “the proof is in the pudding. These new programs don’t just prescribe minimum standards for insulation, ducts and heat pumps, they certify the home’s performance. It’s a

win-win, based on results everyone can count on. Santee Cooper gets to forego the cost of generating the additional power to energize a less efficient home and perhaps having to build additional generation prematurely. The homeowner gets a home that’s more comfortable and saves energy for years to come.”

Go to [www.ReduceTheUse.com](http://www.ReduceTheUse.com) for full details on the Smart Energy Homes program and the other Reduce the Use initiatives and rebates. **PS**

To qualify for either the ENERGY STAR or the Smart Energy Home:

- ❌ The home must be separately metered and receive electrical service from Santee Cooper as evidenced by a meter base number after the permanent meter is set.
- ❌ The home must be all electric excluding hybrid heat pumps and vented decorative gas logs.
- ❌ The home’s HVAC system must be a heat pump with a minimum 14 SEER rating.
- ❌ The home can be single-family, new residential construction or a total gut rehab. Single-family units are defined as either detached or up to and including four attached units.
- ❌ The home can be multi-family, new residential and mixed-use (residential and commercial) construction as long as it falls within ENERGY STAR’s policy on qualifying units in multi-family buildings.
- ❌ The energy performance of the home must be verified by an accredited Home Energy Rating System (HERS) Rater using accredited home modeling software.

Common Recommendations for Improvements

- Adding insulation
- Sealing air leaks
- Improving heating and cooling systems
- Sealing ductwork





When the 750 employees at Santee Cooper’s Moncks Corner headquarters returned to work after the 2008 Labor Day weekend, 41 of them took a decidedly different route. They rode the bus.

That was just the start. By September 2009, more than 70 employees were routinely riding the bus to the Moncks Corner offices from park-and-ride locations in Goose Creek, North Charleston and Summerville. In that month alone, these bus riders spared their vehicles 143,212 total miles and spared the environment 48,105 pounds of carbon-dioxide emissions, according to a common conversion formula used by the EPA.

These bus riders are but one aspect of iRide, a commuter benefits program launched by Santee Cooper in September 2008 that has established express bus routes to the Moncks Corner headquarters and Cross Generating Station, as well as facilitated carpool opportunities at all of its locations throughout South Carolina.

Since its inception, iRide has attracted participation by 482 of Santee Cooper’s 1,850 employees. Their commutes have entailed more than 2,484,132 miles, which correlates to an avoidance of more than 790,407 pounds of CO2 from the atmosphere.

### Panic at the pump

When Santee Cooper launched iRide, the average price for a gallon of regular gasoline in South Carolina was around \$4 — the highest-ever recorded average in the state, according to AAA.

Confounding the issue was the rural location of Santee Cooper’s headquarters in Moncks Corner, about 40 miles west of Charleston. At the time, the area’s rural public transit provider, TriCounty Link, only offered traditional fixed rural routes, contract service and Medicaid transportation. The 750 Santee Cooper employees traveling to Moncks Corner every day had no alternative commuting options, and there was no organized way to enable carpooling at any of Santee Cooper’s locations.

A June 2007 survey of human resource professionals conducted by TransitCenter Inc. showed U.S. employers viewed commuter benefits as the No. 1 addition to their benefits packages. In a June 2008 survey by Opinion Research Corporation, 84 percent of the U.S. workforce expected employers to take measures to help offset the rising cost of gasoline. The following month, BusinessWeek Research Services found 26 percent of U.S. workers were considering leaving their jobs because of the high cost of gas.

“The cost to commute began to impact our ability to attract prospective employees. We had offers declined and we even had some employees quit because of the cost of commuting,” says Employee Relations Representative Nicole Wren, who works closely with Ray Smith, senior analyst, in implementing iRide today.

The writing was on the wall.

“Three years ago, the price of gas would not have been considered an HR issue. Today, it is,” says Vice President of Human Resources Glen Brown. “Gas is about \$1.50 cheaper

**We were concerned about our employees and the money they were spending on gas, says Supervisor of Staffing Wendy Cruce.**



Wendy Cruce, Supervisor of Staffing





Nicole Wren,  
Employee  
Relations  
Representative

now than it was in September of 2008, but that concern will never go away. At the same time, more people have become environmentally conscious, so a commuter benefits program started to make even more sense.”

### Crunching the numbers

In the summer of 2008, Brown formed an exploratory committee to determine if a program like iRide would be successful at Santee Cooper. From the outset, the goal was to devise a program that would provide tangible relief for the high cost of gas and demonstrate a quantifiable commitment to

the environment. The committee began by researching similar programs at other utilities and businesses.

“Duke Energy and Georgia Power were the only electric utilities we found in the tri-state region that offered commuter benefits to their employees, and both corporately operate out of large metropolitan areas [Charlotte and Atlanta, respectively],” Cruce says. “We didn’t find one example of a rurally situated company that offered such a program.”

The committee then surveyed Santee Cooper employees to gauge their interest in a commuter benefits program, and 481 respondents, or a fourth of the workforce, said they would “definitely” or “very likely” participate.

“The average commute for those 481 respondents was 52 miles a day, round-trip, for a total of 25,012 miles,” Brown says. “If their vehicles averaged 15 miles per gallon, that would equal 1,667 gallons of gas a day.”

Brown says when the committee conducted the survey, gas was averaging \$3.94 for a gallon of regular unleaded.

“That’s \$6,568 those employees were spending every day on gas,” he says. “At the rate of 19.4 pounds of CO2 per gallon of gas, those 481 employees were releasing 16.2 tons of emissions per day.”

The committee determined that if each of those 481 respondents eliminated just two commutes through carpooling or mass transit per week, they collectively would:

- save 50,024 miles per week and 2,501,200 miles per year;
- save 3,335 gallons per week and 166,750 gallons per year;
- save \$13,140 per week and \$659,995 per year;
- eliminate 32.3 tons of CO2 per week and 1,617 tons per year.

Armed with a dizzying amount of information, the exploratory committee recommended to executive management that Santee Cooper implement a comprehensive commuter benefits program, and iRide was born.

These signs mark preferred parking spots designated for carpools.



### A green vision

The most visible component to iRide is the express bus service provided by TriCounty Link, whose partnership with Santee Cooper has been both serendipitous and symbiotic.

“As we were exploring this idea, Link was trying to expand their ridership and create an express bus service from Moncks Corner,” says Cruce. “So, when we approached them, they were very excited.”

William Hutto, executive director of TriCounty Link, says the proposition by Santee Cooper was welcome and unprecedented.

“Usually, it’s the rural transit authority that advocates transit alternatives to large businesses, not the other way around,” he says. “Santee Cooper made a conscious decision to improve the transit options for their employees, and they have supported that decision with hard work. The result of that hard work has created a network of commuter routes that not only serves their employees but the surrounding communities as well.”





Residents of rural Berkeley County can also benefit from the Link commuter routes by taking advantage of new park-and-ride locations in communities like Bonneau, St. Stephen, Moncks Corner and Pineville. These routes also enable Link riders to connect with Charleston Area Transportation Authority (CARTA) buses in North Charleston, which means a resident of Pineville could now use mass transit to travel to Charleston, some 60 miles away.

To entice passengers who might be skeptical about riding public transportation, Link offered free bus services to all riders, including those from Santee Cooper, for three months beginning in September 2008. For its part, Santee Cooper advertises on the Link buses in exchange for discounted bus passes for employees.

“The routes were a success from day one,” Hutto says. Yet he felt the first true test for the new commuter routes would come when Link reinstated its fares. By that time, gas in the area had fallen to about \$1.70 per gallon. “To our delight, ridership did not decline,” he says.

In fact, it started growing.

When Employee Relations Representative Mohammed Fullah started riding the bus in March 2009 he says it was to save money on gas. “That was the motivation,” he says, “but I ride for other reasons now.”

A Summerville resident, Fullah says his morning commute was typically 40 minutes of stressful driving. “I can definitely

tell a difference on the days I have to drive myself and the days I ride the bus,” Fullah says. “I can just lay back and get ready for the day. It does wonders.”

To help track the miles and emissions that iRide participants were avoiding, Santee Cooper purchased a software package that also enabled employees to find possible carpooling options in their neighborhoods. Santee Cooper also established parking spots reserved for carpoolers in lots close to the office buildings and generating stations, and there are other incentives the utility offers carpoolers.

**Mohammed Fullah, Employee Relations Representative**



“We have employees who have been carpooling long before we created iRide, and this software can help them find additional carpooling participants and options,” Wren says.

To date, Santee Cooper employees at 18 locations throughout South Carolina are participating in the iRide program, which underscores the demand for a commuter benefit and also a commitment to improving the environment.

Unit Operator Michael Neese says he and some of his co-workers at Santee Cooper’s Rainey Generating Station in Iva had begun organizing a carpooling system when iRide was announced. “This certainly jump-started it,” he says. “The timing was perfect.”

Neese commutes about 50 miles a day and says the incentive for him was to save money and reduce his carbon footprint. When schedules allow, he usually carpools with two other Rainey employees.

“It keeps money in my pocket and in theirs, and it keeps wear and tear off our vehicles,” he says. “It’s been a real helpful tool.”

“What we’ve ended up with is a program that benefits our employees, our environment and our communities,” Brown says. “It’s gratifying to see iRide become a strong component of the overall fabric of Santee Cooper.” **PS**

**TriCounty Link**

[www.ridetricountylink.com](http://www.ridetricountylink.com)

1-800-966-6631





# Earth-Friendly Events

## Santee Cooper Colors Events Green

By Mollie Gore    Photos by Jim Huff

When consumers think of “green” and major sporting events or festivals, it’s the color of money that comes to mind. Now Santee Cooper is promoting its own renewable power that event planners can purchase to make these events environmentally green too.

It’s an initiative that started in late 2008, when Santee Cooper and Palmetto Electric Cooperative partnered with the team planning the 2009 Verizon Heritage Golf Tournament to provide 100 percent of the Verizon Heritage’s electricity needs from Santee Cooper renewable Green Power. It was a first for Santee Cooper and for the PGA TOUR, and the first time a major sporting event in South Carolina was fueled by renewable power.

From charging the golf carts to powering message boards, lights and air conditioners, Verizon Heritage offset 136,000 kilowatt-hours of electricity demanded by the seven-day event at Hilton Head’s Harbour Town Golf Links.

“Greening the Verizon Heritage was an opportunity that tied directly into our environmental stewardship goals,” said Marc Tye, vice president of Santee Cooper’s conservation and renewable energy department. “Golf is an increasingly environmentally aware sport, and so it was a great starting point for us.”

It was a move that drew applause from the PGA TOUR and golfers who played in the Verizon Heritage, noted Angela McSwain, marketing director for the tournament. “Our golf course is green, and so is our energy,” she said. The decision was a PR boost for the tour too, as it was communicated to more than 135,000 spectators who attended the tournament and routed in news and Web coverage across the country.

Spectators had the opportunity to learn more by visiting the Santee Cooper/Palmetto Electric Green Power booth on the 18th green, where they could also sign up to purchase Green Power themselves.

Here’s how it works at the golf tournament: Santee Cooper generates renewable Green Power through solar panels and through landfill generating stations that convert naturally occurring methane gas, a byproduct of decomposing garbage, into electricity. Palmetto Electric Cooperative sells to its customers Santee Cooper electricity, including



In this photo illustration used to promote the green-powered 2009 Verizon Heritage, an artist changed the famous red stripes on the Sea Pines lighthouse to a shade of green.





Green Power. Palmetto Electric and the Verizon Heritage determine how much electricity the tournament would use and the tournament purchases blocks of renewable Green Power from Palmetto to offset that electrical demand.

Santee Cooper has generated and sold Green Power since 2001, when it opened the Horry County Landfill Generating Station outside Myrtle Beach; residential customers can purchase blocks of Green Power for \$3 per 100 kilowatt-hours, and commercial customers can purchase 200-kilowatt-hour blocks for \$6, sums that are added to participants' monthly power bills. The state's 20 electric cooperatives also sell Santee Cooper Green Power.

Santee Cooper reinvests all Green Power revenues in new Green Power generation, and so customers who purchase Green Power are not only offsetting their own consumption, they are helping expand renewable power across South Carolina.

Pleased with the success of the 2009 event, the Verizon Heritage has committed to fueling its 2010 tournament with Green Power, too, and Santee Cooper is looking for new events to turn green as well.

Already this year, the North Myrtle Beach Mayfest on Main signed on to go green, as did the Murrells Inlet Christmas Tree Lighting.

Most recently, Santee Cooper Green Power fueled the 2009 Beach Ball Classic, a premier basketball tournament held in late December at the Myrtle Beach Convention Center. The event featured 16 top high school basketball teams, including some of South Carolina's best and others from as far away as Nevada and Wisconsin. Santee Cooper's Green Power provided lighting, heating, sound system and other electrical requirements inside the Convention Center – more than 23,000 kWhs worth.

“This area has been involved in renewable generation with Santee Cooper since Day one, and so it's exciting for the Beach Ball Classic to take environmental stewardship to the next level, by committing to it as our fuel source,” said Stan Parker, Beach Ball Classic president. “The Beach Ball Classic showcases some of the most talented high school basketball players in the country, and we are thrilled to do so this year 100 percent powered by Green Power.”

**Santee Cooper's landfill generating stations form the backbone of the utility's renewable Green Power program, which also includes solar power, plans for new biomass beginning in 2012 and the potential for offshore wind energy. Customers can purchase blocks of Green Power on a monthly basis or to power events; Santee Cooper uses all Green Power revenues to develop new renewable generation.**

Santee Cooper is aggressively looking for other events to turn green, especially in the current economy, said Juan Holmes, manager of energy services for Santee Cooper. Although Santee Cooper continues to promote Green Power purchases to customers, the program isn't expanding now as quickly as it did in better economic times.

There are hundreds of events around the state that could be green-powered, and Holmes and her colleagues are targeting those that make the most sense at this early stage. “Greening these events just gives us another way to get people to participate, so they can test the waters without committing outright to an ongoing monthly expense,” Holmes said. “It gives the event sponsor some great exposure and gives us some options for expanding Green Power participation.”

Santee Cooper did not invent green-powered events: many readers may recall that phrase associated with the past couple of Super Bowls, to pick one high-profile example, and corporate America is beginning to embrace the environmental and promotional benefits of renewable energy-fueled activities.

The U.S. Environmental Protection Agency promotes green-power purchases that offset events or business activity. “At the end of 2001, we had 24 partners purchasing a total of 307,000 kWh,” said Blaine Collison, director of the EPA Green Power Partnership. “Now we have 1,100 partners purchasing 16 million kWh.”



In addition to what the EPA tracks, anecdotal evidence suggests a trend in the making, Collison said. “The things we do have a footprint. One opportunity with doing an event is you are highlighting that fact for a set of stakeholders that might not be anticipating an environmental message in conjunction with the event they're attending.”

Collison encouraged those who test the waters by green-powering an event to take things up a notch. “Look for the next step. Most of our partners are not doing 100 percent green power, but most of our partners have increased their green power purchasing over time.

“Remember, doing anything is better than doing nothing. That's the real opportunity here,” Collison said. “Once anyone gets started, then they're in a position to do more. What we really need is for people and organizations to get started.”

That is Santee Cooper's goal, helping people and organizations get started. Santee Cooper has thousands of Green Power customers, directly and through the state's electric cooperatives. Santee Cooper also offers customers of other utilities the opportunity to support renewable energy by purchasing Green Power Tags. Santee Cooper generates more Green Power than it currently sells to these customers, and so there is more available.

Visit [www.santeecooper.com/greenpower](http://www.santeecooper.com/greenpower) to learn more about Santee Cooper Green Power, or call 800-804-7424 ext. 3205. **PS**



The Philadelphia Phillies are 100 percent green-powered, Collison said. “Switch to green power, win a World Series title. I think it was no accident.”





# A Floating Menace

Photos by Jim Huff

By Kevin F. Langston

In 2004, employees with Santee Cooper’s Analytical & Biological Services (ABS) unit encountered a small plant colony of what they thought was big floating heart in a cove in of the Eutaw Creek area of Lake Marion, near Eutawville.

Big floating heart is a native plant that belongs to a genus of aquatic flowering plants known as Nymphoides, which resemble a water lily and are characterized by heart-shaped leaves that hold small flowers above the water surface.

“The native big floating heart generally grows in shallow, backwater areas and provides good habitat for fish and water fowl,” says Larry McCord, Supervisor of ABS.

Only this wasn’t big floating heart. It was something much more troubling.

“We originally assumed it to be the native plant,” McCord says, “and less than a year later determined it was crested floating heart.”

That determination was confirmed by the U.S. Geological Survey in Florida, where crested floating heart has been an aquatic nuisance for the past 15 years.

Crested floating heart, originally from Asia, resembles native vegetation like big floating heart (banana lily). As a non-native plant, however, it is invasive and can quickly take over a waterway.

ABS began herbicidal treatments targeting crested floating heart in 2005 but had little success.

“Within the year, it had filled that entire 20-acre cove,” McCord says. “Our latest survey identifies approximately 2,000 acres that are now infested.”

There are 160,000 surface acres on the Santee Cooper lakes, and McCord says crested floating heart has the potential to cover as much as 40 percent of it.

“It’s extremely aggressive,” he says. “It’s the most aggressive floating-leaf plant that we’ve encountered on the lakes. It is rooting in high-energy areas along the main shoreline and can grow quite successfully in 10 to 12 feet of water.”

Its aggression is matched only by its wanderlust.

“We don’t know of any viable seed that it produces, but its leaves have root structures that can



Larry McCord, Supervisor of ABS, holds a cluster of crested floating heart. Its dense root structures allow for it to thrive in high-energy areas of the Santee Cooper Lakes, an uncommon quality among floating-leaf plants.

redeposit themselves whenever clusters break away from larger colonies.” McCord says. “We’ve seen significant spread upstream, which means it’s moving against the predominant wind directions and flow pattern of the lakes.”

McCord attributes this upstream colonization to crested floating heart’s tendency to attach to boat hulls and hitch a ride to new areas of the Santee Cooper Lakes.

“It’s also very resistant to herbicides,” McCord says. “We’ve had a very difficult time finding a mix that can control this plant.”

Crested floating heart so far has been primarily contained to the Santee Cooper Lakes, but the S.C. Department of Natural Resources recognizes it as a potential threat to all South Carolina waterways.

“The quick growth reported by Santee Cooper staff has definitely

raised a red flag,” says Chris Page, coordinator for DNR’s Aquatic Nuisance Species Program. “Any plant capable of that pattern of growth, along with the fact that control is difficult and expensive, has the capability of causing major problems to any aquatic ecosystem.”

McCord and Page say the biggest threat

crested floating heart poses to an aquatic ecosystem is its ability to create a monoculture, or single-crop habitat.

“It can out-compete and dominate other native species and can cause complete changes to the ecosystem,” Page says. “Additionally, problems can arise from the sheer biomass of the plants, which can affect water quality for drinking-water supplies, electric hydropower production and recreational activities such as boating, swimming, fishing and hunting.”

It’s a scenario that is all-too familiar to McCord, whose ABS team spent the better part of two decades combating the invasive hydrilla, a submersed aquatic plant that can form dense colonies.

“We’ve got a long history with hydrilla, and that history continues to be written,” McCord says. “We originally found hydrilla in 1982 in the Rimini area of Lake Marion. In spite of careful and targeted herbicide applications from 1982 through 1994, it had infested approximately 45,000 acres of the lake and was growing in depths of up to 20 feet.”

In 1991, a large mass of hydrilla broke free and was pulled into the Rediversion Canal, which feeds the St. Stephen Hydro Plant.



“The hydro station had to be shut down because the hydrilla had clogged its intake,” McCord says. In addition to interfering with Santee Cooper’s primary business, generating electricity, the incident caused dissolved oxygen levels to plummet and jeopardized the aquatic life and habitat there.

Santee Cooper initiated grass-carp stocking in 1989, and in 1996 finally started to see a significant system-wide reduction as the grass-carp fed on the weed. Today, hydrilla occupies only a few hundred acres of the lake system.

McCord says ABS has found an herbicidal mixture that has had some early positive effects on crested floating heart, but they won’t know for certain until the new growing season begins in the spring.

“We’ve been treating it by boat since 2005 and began aerial applications of about 350 acres in October of 2009, which is late in the growing season,” he says. “We’ve been in communication with the USGS in Florida, as well as the University of Florida’s Center for Aquatic Plants, where they’ve been searching for an effective herbicidal solution for 15 years. They are very interested in the chemical combination we are using.”

In the meantime, Santee Cooper and DNR are coordinating a public awareness campaign.

“Please do not transport or place this or any other invasive plant in any South Carolina public waters,” Page says. “If you see it in water bodies outside of the Santee Cooper Lakes please report it to the SCDNR by e-mail [invasiveweeds@dnr.sc.gov](mailto:invasiveweeds@dnr.sc.gov) or telephone 803-755-2872 .”

McCord also asks that people check their boats and trailers to make sure they aren’t inadvertently transporting it from one area of the lake to another.

“We’re also asking folks to contact ABS if they see any other infestations of the plant that we’re not already aware of,” McCord says

That number is 843-761-8000 ext. 5735. **PS**

**Close-up shots reveal how similar big floating heart (left) and crested floating heart (right) appear. The plants can most easily be identified by their flowers as well as the underside of the floating leaves. Crested floating heart, the invasive species, has a smooth underside and a ruffled crest (like a rooster’s comb) down the center of its flower petals. Big floating heart has prominent veins and a very rough surface texture on its underside, and its flower petals have no crest-like structure down the center. The underside of the big floating heart is also much darker in color.**





Off season along the

Grand Strand

doesn't mean "goodbye for the summer"

By Willard Strong   Photos by Jim Huff



Off-season vacationers with a penchant for inshore angling along the Grand Strand can avail themselves of fall and winter opportunities for flounder, spots and croaker fish, among other species.

*"Though we've got to say goodbye*

*For the summer*

*Darling, I promise you this*

*I'll send you all my love*

*Everyday in a letter*

*Sealed with a kiss."*

**From Brian Hyland's 1962 hit, *Sealed With a Kiss***

Forty-eight years after Hyland climbed to No. 3 on the Billboard charts, the Grand Strand is proving that summer farewells don't necessarily apply to South Carolina's beach economy in the 21st century.

But a half-century ago, that wasn't the case. Post Labor Day, visitors went home and "closed for the season" signs were the norm at hotels, eateries, mom-and-pop shops and other businesses from Georgetown to Little River.

"Those days are long gone," says Brad Dean, president and chief executive officer of the Myrtle Beach Area Chamber of Commerce. "Our peak season continues to be the summer months, but more and more businesses are open year-round, which is a good sign for our area."

The "off season" has gotten busier for two reasons: more group events, and more snowbirds. "In the spring and fall, we not only host thousands of golfers, but also conventions, corporate meetings, motor





The Original Pawleys Island Rope Hammock Shop, open year round, has been a signature destination for locals and visitors since the mid-1930s. In addition to their famous hammocks, the shop offers a unique collection of books and gift items that make for a delightful off-season shopping experience.

A big drawing card for off-season golfers is the Grand Strand's relatively mild winters, making golf a year-round opportunity. According to Myrtle Beach Golf Holiday, a non-profit trade association, there are about 100 Grand Strand courses hosting 1 million players who play 4 million rounds of golf annually.



coach tours, reunions, and many large events, in addition to regular leisure travelers," Dean says.

And as the Grand Strand has evolved, a more permanent population increased as "snowbirds" originating from the Northeast and Canada became more prevalent. As many will tell you, it can often be cheaper to live in Myrtle Beach for several months than heat your house in Ontario or Ottawa.

The area is powered by Santee Cooper, and the affordable, reliable electricity Santee Cooper supplies has helped the Grand Strand grow into a mega-destination. "The level of service and support provided by Santee Cooper is a crucial component to our economy and cannot be overestimated," says Dean.

"I've lived and worked here my entire career, and I've seen it change from a summer getaway to a vital, year-round sustainable community with opportunities for residents young and old," says Zack Dusenbury, vice president of retail operations for Santee Cooper. "All of us at the division office care deeply about continuing to help our community offer the jobs, services and amenities that make this a home for us and for our children as they grow and enter the workforce."

Locals know the importance of a vital tourism business, and so they share this secret: The autumn and winter are terrific times to spend in Horry and Georgetown counties. The crowds, lines, cars

and moving golf carts are fewer. It is actually a golfer's dream thanks to ample days that, to Northern-native tastes, are mild and liberally sun splashed. At around 120 golf courses from which to choose, it should be as easy as that next "gimme putt" to find one that fits your budget and handicap.

Speaking of budget, in these economically challenging times, your wallet will love the cooler months at the beach. Accommodations can cost significantly less and the vibe is more laid back, relaxed and slower paced than summer's frenzy. With more affordable prices, why not consider upgrading to the things such as indoor heated pools and jacuzzis, saunas and other amenities you may have shrugged off because you couldn't afford them. Off-season rates can offer you that option.

Think beyond a motel or hotel. The Grand Strand building boom of the last decade now means more options for rental property — particularly true in the off season. The 2010 reality: more rentals out there with fewer renters, so the basic law of supply and demand benefits the renter. According to the National Association of Realtors, 44 percent of vacation homes bought in 2006 were new. With the recession, home prices and values have fallen, and more resort homeowners are renting out their homes for much of the year.

"The blue water and white sands of Pawleys Island and Litchfield beaches await you," touts Web site IgoUgo.com. "It's our favorite time of year...the crowds are gone and off-season rates are here."

**Nancy Cook, Marsha Norman and Brenda Grahl (left to right) explore the Bike the Neck bicycle and walking path along the Waccamaw Neck last December. The Greenville, S.C. trio camped at the nearby Huntington Beach State Park, located across from the famous Brookgreen Gardens.**



Dean notes that discounts vary by type of property, location and time of year. "Our schools start back in late August. Rates tend to drop a bit and then when the fall golf season wraps up, the rates drop even more. Generally, rates won't go back up until the spring golf season commences."

There are customer testimonials too. At IgoUgo.com, which encourages vacationers to relay their travel





experiences online, one Killington, Vt. couple said this about a recent February vacation:

“It was like spring and not crowded. A nice surprise! The best things to do in Myrtle Beach are to play golf, shop, go out to eat and walk on the beach.”

Stock car racing, anyone? The one-half mile paved track, where generations of Pettys and Earnhardts cut their NASCAR teeth, annually hosts a November race. The Myrtle Beach 400 features two days of racing in the Late Models, Super Trucks, Limited Late Models and Mini-Stocks classes.

Also in November, Thanksgiving week is for the annual South Carolina Bluegrass Festival at the Myrtle Beach Convention



Fall and winter bring their own beauty to beach scenes along the South Carolina coastline.





Center. Now in its 41st year, bluegrass greats such as Ralph Stanley and the late Bill Monroe have graced the stage. Last year’s event featured Grammy winner Rhonda Vincent and her band, the Rage.

The Myrtle Beach chamber recently ramped up promoting the Grand Strand as an off-season destination. Its \$2 million campaign is paying dividends. For example, a recent study by Coastal Carolina University’s Clay Brittain Jr. Center for Resort Tourism, part of CCU’s E. Craig Wall Sr. College of Business Administration, showed a 60 percent hotel occupancy rate for the 2009 Thanksgiving week. That’s up nearly 10 percent from last year, a key economic indicator that better times are ahead for the Grand Strand economy — and that means year-round.

During the yuletide season, the dinner theaters such as Dolly Parton’s Dixie Stampede and the Medieval Times Dinner & Tournament beckon holiday visitors. Calvin Gilmore’s Carolina Opry, which Southern Living magazine calls “an entertainment phenomenon,” and the Alabama Theatre feature Christmas spectaculars and often

play to packed houses. Signature destinations such as Brookgreen Gardens and Ripley’s Aquarium also have special holiday and winter programs and events.

And shopping at the outlet malls means bargains during any season.

The quaint fishing village of Little River, bordering the North Carolina state line, offers quite a lineup of cooler weather events. There’s Octoberfest (actually held in September) and October’s Shrimp and Jazz Fest. These events are in their fifth or sixth year, an indication of the relative newness of many off-season attractions. In February, Little River hosts A Taste of the South, a culinary delight sure to give chase to any winter blues.

Local leaders have taken the initiative to make getting to the Myrtle Beach area easier. While the Grand Strand is predominately a driving destination, that could change soon with improvements under way at the Myrtle Beach International Airport.



**The off-season means less congestion on shopping center sidewalks and Grand Strand streets, making shopping and driving both more relaxing.**

The airport is working on a plan to increase passenger capacity on the airport’s east side. Called the Terminal Capacity Enhancement Project, it’s a \$129 million upgrade that would expand the number of commercial terminals from seven gates to 12. The plan also calls for new parking facilities, a new rental car building and upgrades to the passenger terminal.

Over 750,000 passengers fly in and out of Myrtle Beach every year, representing 6 percent of the region’s 14 million visitors. Seven airlines serve this important transportation cog and non-stop service is offered to at least 16 destinations from Myrtle Beach. Golfers from the Midwest comprise a huge part of the airport’s annual business, as do Canadians.

From Feb. 28 through May 30, travelers can enjoy non-stop flights to Myrtle Beach from Toronto, Canada. With one-way fares of \$179 (plus taxes) on Porter Airlines, it’s a new off-season travel opportunity. In 2008, nearly 1 million Canadians visited the Grand Strand and 40 percent of those visited during the off season in January, February and March.

“The Canadian travel market is colossal for the Myrtle Beach area,” says Dean. “We are absolutely thrilled to welcome Porter and more

Canadians to Myrtle Beach. By adding direct, affordable air service, we make it easier for our current visitors to fly here. Plus, we can attract new, first-time visitors who would not typically drive here but will definitely consider a cheap flight. This is particularly important when targeting our three- and four-day getaways.”

Golf. Shopping. Entertainment. Dining and accommodations. And what about the main attraction – the strand itself? The beach can be a real discovery in fall and winter, often with spectacular sunrises and sunsets, a setting for solitude, quiet walks and a place to recharge. Locals know that this time of year is the ideal season for angling, so bring a fishing pole for the beach or for the pier.

Says Dean, “The Grand Strand has always been affordable and value-oriented, but today we are a bargain hunter’s dream destination. For those seeking to enjoy their vacation and not spend a lot of money, there’s no better place than the Grand Strand.” Especially in the off-season. **PS**

*“I’ll be alone each and every night*  
*While you’re away, don’t forget to write*  
*Bye-bye, so long, farewell*  
*Bye-bye, so long*  
*See you in September*  
*See you when the summer’s through.”*

**From The Happenings 1966 hit,  
See You in September**





## Wind turbine photo

People on the South Carolina shoreline could see an offshore wind farm eight miles or more out in the Atlantic, according to a photo simulation conducted recently for Santee Cooper by Clemson University's South Carolina Institute for Energy Studies (SCIES).

Typical summer haze would reduce the visibility by about half.

The photo simulation is part of Santee Cooper's ongoing research into the viability of a potential offshore wind farm that would generate renewable electricity for the state-owned utility system. In addition to researching available wind, transmission capabilities, anticipated costs and other factors, Santee Cooper is considering visibility and how that will impact existing onshore land use and tourism considerations.

In the simulation, SCIES photographed ocean views from various coastal points along Horry and Georgetown counties, roughly matching the two areas hosting an ongoing wind buoy study by Santee Cooper and Coastal Carolina University.

The photographs were enhanced with Wind-Pro software, to accurately portray the turbine visibility at various distances and in different light and wind conditions. The photographs can be viewed at [www.santeecooper.com/press](http://www.santeecooper.com/press).

## Small-scale projects advance

Continuing to advance its public outreach and education regarding wind-generated power, Santee Cooper is researching the viability of wind energy at new locations in Georgetown County and the City of Georgetown. Utility crews are installing anemometers that will document wind speed and direction for a few months, work that could lead to installing small-scale on-shore wind turbines with classroom applications.

"Santee Cooper is proceeding with our research into a potential offshore wind farm, and we are also looking onshore for opportunities to build demonstration wind energy projects and engage the public," said Marc Tye, Santee Cooper vice president of conservation and renewable energy. "These projects offer a great learning opportunity for students, and they will help us all learn more about this important potential renewable energy resource."

On Nov. 17, a Santee Cooper distribution operations crew installed an anemometer at the end of the Georgetown Fishing Pier. Engineers will monitor the data for three to six months and if the wind is sufficient, Santee Cooper could install a 2-kilowatt wind turbine at that location.

This would be the first utility-installed wind turbine in Santee Cooper's customer service territory and possibly the first in the state of South Carolina. It will have an Internet interface that will allow students and other interested residents to monitor real-time energy output from the turbine.



In addition to the Georgetown Fishing Pier location, Santee Cooper is testing winds at Georgetown's Morgan Park and could install a second small turbine there in the near future.

## Bond sale approved

The Santee Cooper Board of Directors approved the sale of \$424,570,000 in refunding and new money bonds during a special board meeting in October.

The issue includes \$39,725,000 tax-exempt refunding Series D bonds, \$284,845,000 2009 tax-exempt Series E bonds, and \$100,000,000 2009 taxable Series F bonds. Maturities range from 2011 through 2040. The all-in true interest cost was calculated at 4.67 percent.

The issue drew strong ratings, including an AA from Fitch Ratings, an AA- from Standard & Poor's, and an Aa2 from Moody's Investment Service. All rating agencies reaffirmed strong long-term ratings for the utility as well.

"Successful bond issues like this help Santee Cooper meet the state's needs for affordable, reliable power," said Elaine Peterson, executive vice president and chief financial officer. "Our strong reputation and history regarding operational and financial performance, once again, have helped Santee Cooper attain bond financing that helps minimize costs to our customers."

Proceeds are for extraordinary working capital for a recent judgment regarding the U.S. Army Corps of Engineers' Cooper River Rediversion Project, capital needs associated with pre-construction activities for Santee Cooper's expansion of the V.C. Summer Nuclear Generating Station with SCE&G, and to refinance a portion of the utility's outstanding debt. **PS**





Green to the core.